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EXAMINER	
SIMMONS, JENNIFER E	

ART UNIT	PAPER NUMBER
2854	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/557,826	RASCH ET AL.	
	Examiner	Art Unit	
	Jennifer Simmons	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Achelpohl et al. (5,974,968).

As to **claim 1**, Achelpohl et al. teaches a mandrel-locking unit for a rotary printing machine (column 1, lines 12-16) comprising a mandrel-mounting element (number 27 in figure 2) that forms a hollow body and accommodates in an enclosed form in an interior thereof a bearing (number 28 in figure 2) for mounting a print roller mandrel (number 5 in figure 2) having a mandrel-supporting surface (near the end of number 5 in figure 2 that would engage with bearing 28) and that is slideable between a mounting position (when 27 is extended to the right in figure 2; column 2, lines 62-67) in which the print roller mandrel (number 5) is in mesh with the bearing (number 28) and a release position (as shown in figure 2) in which the print roller mandrel (number 5) is out of mesh with the bearing (number 28), a pressurizing medium cylinder (number 26 in figure 2) including a pressure chamber (number 30 in figure 2) with a piston (see figure below) located therein for sliding the mandrel-mounting element (number 27) between the mounting position and the release position (as described above), the piston (which

is made up of a part, including the piston rod that extends into the pressure chamber 30 and a surface in the chamber, as well as the back surface of the mandrel-mounting element which is considered to be the boundary surface) delimiting the pressure chamber (number 30) at a boundary surface (the back surface of the mandrel-mounting element which is considered to be the boundary surface, see figure 2) and being connected to the mandrel-mounting element (number 27) at a connecting point (approximately represented by the division between the non-shaded and shaded areas of number 27) for a transfer of force required for sliding the mandrel-mounting element (number 27), a distance between the boundary surface and the connecting point being smaller than a maximum stroke of the piston in the pressurizing medium cylinder (number 26; see the figure below where the maximum stroke of the piston is the length of pressure chamber 30, and the distance is between the back surface and the above indicated connection point; as can be seen from figure 1, this distance is significantly less than the maximum stroke of the piston), an inner diameter of the pressurizing medium cylinder (number 26) being larger (a requirement for sliding) than an outer diameter of the mandrel-mounting element (number 27) and the pressurizing medium cylinder (number 26) including a break-through (number 24 in figure 1, see column 2, lines 60-62) that is open in the release position of the mandrel-mounting element (number 27) such that the print roller mandrel (number 5) and the mandrel-locking unit (on bearing block 10 as shown in figure 1; column 2, lines 30-38) are separable from one another by a movement in relation to one another (along guide rail 9 in figure 1).

As to **claims 2 and 9**, Achelpohl et al. teaches the distance between the boundary surface and the connecting point is smaller than three quarters of the maximum stroke of the piston in the pressurizing medium cylinder (see figure 2 where the distance, as defined above is less than three quarters of the maximum stroke length, as represented by the length of pressure chamber 30).

As to **claims 3 and 10**, Achelpohl et al. teaches the distance between the boundary surface and the connecting point is smaller than half of the maximum stroke of the piston in the pressurizing medium cylinder (see figure 2 where the distance, as defined above is less than three quarters of the maximum stroke length, as represented by the length of pressure chamber 30).

As to **claim 4**, Achelpohl et al. teaches parts of the mandrel-mounting element (number 27 in figure 2) are displaceable in the pressurizing medium cylinder (number 26 in figure 2; column 3, lines 60-67).

As to **claim 7**, Achelpohl et al. teaches the mandrel-mounting element (number 27 in figure 2) and the pressurizing medium cylinder (number 26 in figure 2) are shaped as circular cylinders and that their have axes of symmetry that extend parallel to a distance (where the distance between the axes is 0) between one another.

As to **claim 8**, Achelpohl et al. teaches a mandrel-locking unit for a rotary printing machine (column 1, lines 12-16), comprising: a mandrel-mounting element (number 27 in figure 2) configured to accommodate in an interior thereof a bearing (number 28 in figure 2) for mounting a print roller mandrel (number 5 in figures 1 and 2) having a mandrel-supporting surface (near the end of number 5 in figure 2 that would engage

with bearing 28), the mandrel-mounting element (number 27) being slideable between a mounting position (when 27 is extended to the right in figure 2; column 2, lines 62-67) in which the print roller mandrel (number 5) is in contact with the bearing (number 28) and a release position (as shown in figure 2) in which the print roller mandrel (number 5) is out of contact with the bearing (number 28); and a pressurizing medium cylinder (number 26 in figure 2) including a pressure chamber (number 30 in figure 2) with a piston located therein (which is made up of a part, including the piston rod that extends into the pressure chamber 30 and a surface in the chamber, as well as the back surface of the mandrel-mounting element which is considered to be the boundary surface) for sliding the mandrel-mounting element (number 27) between the mounting position and the release position (column 2, line 67-column 3, line 4), and a break-through (number 24 in figure 1) that is open in the release position of the mandrel-mounting element such that the print roller mandrel (number 5) and the mandrel-locking unit (which is located on bearing block 10) are separable from one another by a movement (along guide rail 9) in relation to one another (column 2, lines 60-62), an inner diameter of the pressurizing medium cylinder (number 26) being larger than an outer diameter of the mandrel-mounting element (number 27; see figure 2 and in order for the mandrel-mounting element to slide in the pressurizing medium cylinder this limitation is met; column 2, lines 62-64), the piston (as defined above) (i) having a boundary surface that delimits an end of the pressure chamber (the back surface of the mandrel-mounting element 27 is considered to be the boundary surface, see figure 2) and (ii) being connected to the mandrel-mounting element (number 27) at a connecting point for a

transfer of force required to slide the mandrel-mounting element (the connecting point is approximately represented by the division between the non-shaded and shaded areas of number 27), and a distance between the boundary surface and the connecting point being less than a distance of a maximum piston stroke in the pressurizing medium cylinder (number 26; see the figure below where the maximum stroke of the piston is the length of pressure chamber 30, and the distance is between the back surface and the above indicated connection point; as can be seen from figure 1, this distance is significantly less than the maximum stroke of the piston).

As to **claim 11**, Achelpohl et al. teaches a mandrel-locking unit for a rotary printing machine (column 1, lines 12-16) comprising a mandrel-mounting element (number 27 in figure 2) that forms a hollow body (see figure 2) and accommodates in an enclosed form in an interior thereof a bearing (number 28 in figure 2) for mounting a print roller mandrel (number 5 in figure 2) having a mandrel-supporting surface (near the end of number 5 in figure 2 that would engage with bearing 28) and that is slideable between a mounting position in which the print roller mandrel is in mesh with the bearing (when 27 is extended to the right in figure 2) and a release position in which the print roller mandrel is out of mesh with the bearing (as shown in figure 2; column 2, lines 62-64), a pressurizing medium cylinder (number 26 in figure 2) including a guide area (the inner cylindrical surface of number 26) in which the mandrel-mounting element (number 27) is slidably supported (column 2, lines 62-64), and a pressure chamber (the inner area of number 26, specifically the part of the inner area behind part 27) with a piston (the back surface of number 27) located therein for sliding the mandrel-mounting

element between the mounting position and the release position (see figure 2), the piston delimiting the pressure chamber at a boundary surface (the boundary surface being the leftmost edge of number 27) and being connected to the mandrel-mounting element at a connecting point (they are integrally formed together, such that the connection point is near the back edge of number 27) for a transfer of force required for sliding the mandrel-mounting element (column 1, line 65-column 2, line 2), a distance between the boundary surface and the connecting point being smaller than a maximum stroke of the piston in the pressurizing medium cylinder (the maximum stroke of the piston in the pressurizing medium cylinder is taken to be the length of the cylinder 26 less the length of number 27, the distance between the boundary surface and the connecting point, as they are both substantially the end of number 27, as defined above, can be seen to be much smaller than the maximum stroke distance as shown in figure 2), an inner diameter of the pressurizing medium cylinder being larger than an outer diameter of the mandrel-mounting element (see figure 2 and in order for the mandrel-mounting element to slide in the pressurizing medium cylinder this limitation is met; column 2, lines 62-64), the pressurizing medium cylinder including a break-through (number 24 in figure 1) that is open in the release position of the mandrel-mounting element (number 27) such that the print roller mandrel (number 5) and the mandrel-locking unit (which is located on bearing block 10) are separable from one another by a movement (along guide rail 9) in relation to one another (column 2, lines 60-62), and the pressure chamber and the guide area being separated from each other by the mandrel-

mounting element and a sealing ring (where the sealing ring is taken to be the circumferential edge of the piston as defined above; see figure 2).

As to **claim 12**, Achepohl et al. teaches the piston is configured as a disk (the end of cylinder 27 would be a disk).

As to **claim 13**, Achelpohl et al. teaches the distance between the boundary surface and the connecting point is essentially zero (as noted above, with the definitions of the surface and the connecting point above they are both substantially the end of number 27 and thus the distance between is essentially zero).

As to **claim 14**, Achelpohl et al. teaches the distance between the boundary surface and the connecting point equals a thickness of the disk (as noted above, with the definitions of the surface and the connecting point above they are both substantially the end of number 27 and thus the distance between is taken to be the thickness of the disk).

As to **claim 16**, Achelpohl et al. teaches a mandrel-locking unit for a rotary printing machine (column 1, lines 12-16) comprising a mandrel-mounting element (number 27 in figure 2) that forms a hollow body (see figure 2) and accommodates in an enclosed form in an interior thereof a bearing (number 28 in figure 2) for mounting a print roller mandrel (number 5 in figure 2) having a mandrel-supporting surface (near the end of number 5 in figure 2 that would engage with bearing 28) and that is slideable (column 2, lines 62-64) between a mounting position in which the print roller mandrel is in mesh with the bearing (when 27 is extended to the right of its position in figure 2) and a release position in which the print roller mandrel is out of mesh with the bearing (as

shown in figure 2), a pressurizing medium cylinder (number 26 in figure 2) including a pressure chamber (the inner area of number 26, specifically the part of the inner area behind part 27) with a piston located therein (the back surface of number 27) for sliding the mandrel-mounting element (number 27) between the mounting position and the release position (column 2, lines 62-64), an inner diameter of the pressurizing medium cylinder being larger than an outer diameter of the mandrel-mounting element (see figure 2 and in order for the mandrel-mounting element to slide in the pressurizing medium cylinder this limitation is met; column 2, lines 62-64), the piston delimiting the pressure chamber at a boundary surface (the boundary surface being the leftmost edge of number 27) and being connected to the mandrel-mounting element (as defined above, they are both portions of number 27 and thus are integrally connected) for a transfer of force required for sliding the mandrel-mounting element (column 1, line 65-column 2, line 2), a surface of the piston opposite the boundary surface being directly connected to an end surface of the mandrel-mounting element (the piston forms the end portion of number 27, as such the surface of the piston opposite the boundary surface is directly connected to the end surface of the mandrel-mounting element as can be seen in figure 2 along an imaginary line approximating the division between unlined and crosshatched areas of 27 shown in figure 2), and the pressurizing medium cylinder including a break-through (number 24 in figure 1) that is open in the release position of the mandrel-mounting element such that the print roller mandrel (number 5) and the mandrel-locking unit (which is located on bearing block 10) are separable from one

another by a movement (along guide rail 9) in relation to one another (column 2, lines 60-62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Achelpohl et al. (5,974,968) in view of Okamoto et al. (5,562,358).

As to **claim 5**, Achelpohl et al. teaches all the limitations of the invention as noted above except the piston is a disk without a rod.

However, Okamoto et al. teaches the disk-like piston (number 27 in figure 2) connecting to the mounting element (number 19 in figure 2) without a rod (column 3, line 65-column 4, line 14).

It would have been obvious to one skilled in the art at the time of invention to modify Achelpohl et al. to have the connection between the piston and the mandrel-mounting element as taught by Okamoto et al. to simplify the structure of the mandrel-locking unit and reduce the size of the device to reduce the cost of the unit.

As to **claim 17**, Achelpohl et al. teaches a mandrel-locking unit for a rotary printing machine (column 1, lines 12-16) comprising a mandrel-mounting element (number 27 in figure 2) that forms a hollow body (see figure 2) and accommodates in an

enclosed form in an interior thereof a bearing (number 28 in figure 2) for mounting a print roller mandrel (number 5 in figure 2) having a mandrel-supporting surface (near the end of number 5 in figure 2 that would engage with bearing 28) and that is slideable (column 2, lines 62-64) between a mounting position in which the print roller mandrel is in mesh with the bearing (when 27 is extended to the right of the position shown in figure 2) and a release position in which the print roller mandrel is out of mesh with the bearing (as shown in figure 2), a pressurizing medium cylinder (number 26 in figure 2) including a pressure chamber (the inner area of number 26, specifically the part of the inner area behind part 27) with a piston located therein (the back surface of number 27) for sliding the mandrel-mounting element between the mounting position and the release position (column 2, lines 62-64), an inner diameter of the pressurizing medium cylinder being larger than an outer diameter of the mandrel-mounting element (see figure 2 and in order for the mandrel-mounting element to slide in the pressurizing medium cylinder this limitation is met; column 2, lines 62-64), the piston delimiting the pressure chamber at a boundary surface (the boundary surface being the leftmost edge of number 27) and being connected to the mandrel-mounting element for a transfer of force required for sliding the mandrel-mounting element (see figure 2 and column 1, line 65-column 2, line 2), a surface of the piston opposite the boundary surface being directly connected to an end surface of the mandrel-mounting element (the piston forms the end portion of number 27, as such the surface of the piston opposite the boundary surface is directly connected to the end surface of the mandrel-mounting element as can be seen in figure 2 along an imaginary line approximating the division between

unlined and crosshatched areas of 27 shown in figure 2), and the pressurizing medium cylinder (number 26 in figure 2) including a break-through (number 24 in figure 1) that is open in the release position of the mandrel-mounting element such that the print roller mandrel (number 5) and the mandrel-locking unit (which is located on bearing block 10) are separable from one another by a movement (along guide rail 9) in relation to one another (column 2, lines 60-62).

Achelpohl et al. does not teach the transfer of force being provided by a compressed fluid that acts on the connected piston and mandrel-mounting element.

Okamoto et al. teaches the transfer of force to the piston (number 27 in figure 2) from a compressed fluid (column 4, lines 2-14).

It would have been obvious to one skilled in the art at the time of the invention to modify Achelpohl et al. to use a compressed fluid to move the piston as taught by Okamoto et al. because it would reduce the number of moving parts in the system allowing for a simpler structure of the mandrel-locking unit and reduced size of the device which would reduce the cost of the unit.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achelpohl et al. (5,974,968) and Okamoto et al. (5,562,358) further in view of Rosberg et al. (6,473,954).

As to **claim 6**, the combination of Achelpohl et al. and Okamoto et al. teaches the mechanical connection between the piston (number 27 of Okamoto et al.) and mandrel-

mounting element (combination of number 27 of Achelpohl et al. and number 19 of Okamoto et al.) except the teaching of the type of connection is a threaded connection.

However, Rosberg et al. teaches that a threaded connection is one of the conventional mechanical connections (column 1, lines 36-38).

It would have been obvious to one skilled in the art at the time of the invention to modify the combination of Achelpohl et al. and Okamoto et al. to use the threaded connection between the piston and the mandrel-mounting element as taught by Rosberg et al. for the purpose of simplifying the assembly of the device to save the cost.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achelpohl et al. (5,974,968) in view of Clarke et al. (4,083,205).

As to **claim 15**, Achelpohl et al. teaches all of the limitations of the invention as noted above except the sealing ring is disposed circumferentially around the mandrel-mounting element, and between the mandrel-mounting element and the guide area of the pressurizing medium cylinder.

Clarke et al. teaches a sealing ring (number 23 in figure 3) disposed around an element (number 27 in figure 3) between that element (number 27) and a guide area (the inside surface of part number 28; column 4, lines 31-33).

It would have been obvious to one skilled in the art at the time of the invention to modify Achelpohl et al. to include a sealing ring around the mandrel mounting element as taught by Clarke et al. because such a sealing ring would ensure that there was a

tight joint between the mandrel-mounting element and the guide area (column 4, lines 31-33).

Response to Arguments

Applicant's arguments filed 6 March 2009 have been fully considered but they are not persuasive. Applicant has stated that there is no disclosure by Achelpohl of a distance between the piston boundary surface and the connecting point. In regards to claims 1, 8, and 11, the distance is taken to be a distance as defined above. The piston surface has been explained in more details in the hopes of clarifying what is considered to be the piston and how the surfaces of the piston relate to the defined connecting point and other features of the invention and reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Simmons whose telephone number is (571)270-7807. The examiner can normally be reached on Monday-Friday, 7:30 a.m.-5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 2854

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854